

C. Remarks

The claims are 74-76, with claim 74 being independent. Claim 74 has been amended for clarification. No new matter has been added. Reconsideration of the present claims is expressly requested.

Claims 74-76 stand rejected 35 U.S.C. § 112, first paragraph, for allegedly failing to comply with the written description requirement. Specifically, the Examiner alleged that the specification as originally filed does not support the range of the side lengths of square sections and the absence of walls partitioning the sections. Applicants respectfully disagree.

With respect to the side lengths, the Examiner's attention is directed the specification at page 33, line 20, through page 34, line 20, discussing the density of the matrix section. The specification sets forth the relationship between density, spot width and section size. Therefore, it is clear that the claimed range is supported by this discussed relationship, coupled with the specifically recited square sizes (500 μ m, 1.2 mm and 6 mm).

With respect to the absence of walls partitioning sections, the Examiner's attention is directed to Example 5, which discloses that the array is prepared by depositing probes on a glass substrate with a maleimide group using a bubble jet. This process inherently produces an array without partition walls, which is different from the array produced by patterning in Example 6.

In view of the above, it is clear that the present claims are clearly supported

by the original disclosure. Therefore, withdrawal of the above rejection is respectfully requested.

Claims 74-76 also stand rejected under 35 U.S.C. § 112, second paragraph, as being allegedly indefinite. In particular, the Examiner alleged that it is unclear whether the detection substrate or the sections have the recited side length.

While claim 74 as presented in the last-filed Amendment clearly states that the side length refers to the square sections, Applicants have amended claim 74 to even further clarify this feature. Accordingly, the indefiniteness rejection should be withdrawn.

Claims 74-75 stand rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by U.S. Patent No. 5,700,637 (Southern) or U.S. Patent No. 5,807,522 (Brown). The grounds of rejection are respectfully traversed.

Prior to addressing the merits of rejection, Applicants would like to briefly discuss some of the features and advantages of the presently claimed invention. That invention, in pertinent part, is related to a method for detecting a complex formed between an oligonucleotide having a known base sequence (probe) and an object component capable of binding to the oligonucleotide, to determine whether the object component is contained in each of at least two liquid test samples. In this method, one type of probe (an oligonucleotide having a known base sequence) is fixed on each section at a uniform surface density. A plurality of these sections with different types of probes are arranged in a matrix form on a solid substrate, while a plurality of test samples are spotted in each section by a predetermined liquid amount to form a microarray of spots in the each section. Since the test samples are “spotted” in each section on a substrate, no partitioning walls are

necessary. Thus, a smaller amount of material can be used compared to that in conventional methods where the materials are “loaded” in wells.

Southern is directed to a conventional testing method in which probes are placed in wells and then the material to be analyzed is loaded into the wells. This is a typical assaying method, which clearly differs from the one presently claimed in that wells by definition are partitioned from each other by walls while the presently claimed method employs a substrate where sections are not partitioned by walls. In fact, since Southern teaches that the analyte is loaded for testing, it is necessary for the partitioning walls to be present to prevent the contamination of adjacent sites in view of the amount of analyte used in the loading process.

Brown discloses spotting analytes to form a microarray in a well on a substrate with a poly-lysine coating and then loading the well with an “analyte-specific assay reagent” to react it with the analytes. While this arrangement is opposite to that in the conventional method disclosed in Southern in that the unknown material is placed in the wells before the reagent, Brown fails to anticipate the presently claimed invention at least for the same reason as Southern. Specifically, like Southern, Brown teaches forming a plurality of wells on a substrate, which are loaded with reagent. There is no disclosure of a substrate where there are no walls partitioning sections, as presently claimed. Also, as in Southern, the wells are necessary in order to accommodate the loading of the reagent.

In conclusion, Applicants respectfully submit that the cited references, whether considered separately or in combination fail to disclose or suggest the presently claimed elements. Wherefore, withdrawal of the anticipation rejections and expedient

passage of the application to issue are respectfully requested.

This Amendment should be entered, because it places the case in allowable form. The amendment made in claim 74 simply clarified the language already present in this claim prior to the final rejection. Clearly, no new search is necessitated by this amendment. Alternatively, this amendment places the case in a better form for a possible appeal.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address given below.

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